What is claimed is:

1. A production control system for producing products from parts, the production control system, comprising:

5   a product data obtaining module configured to obtain product data including an effective surplus production quantity from a parent product production location, which is a location producing parent products using the products as their direct parts;

          a part data obtaining module configured to obtain part data
10   including a surplus production quantity from a part production location producing the parts;

          an effective surplus production quantity calculation module configured to calculate an effective surplus production quantity of a production department which produces the products from the parts based on
15   the effective surplus production quantity and the surplus production quantity;

          a part data transmission module configured to transmit part data including an effective surplus production quantity of the production department to the part production location; and,

20   a product data transmission module configured to transmit product data including a surplus production quantity of their products to the parent production location.

2. The production control system of claim 1, further comprising:

25   a product data storage unit configured to retain the product data including a fixed quantity for parent products, a requested quantity of

parent products, and a surplus production quantity for parent products;

a part data storage unit configured to retain the part data including a fixed quantity of parts, a desired quantity for parts, and a surplus production quantity of parts; and,

5   a production scheduler configured to

update the requested quantity of parent products according to the change of the desired quantity for parts from a parent production location, and

update the desired quantity for parts according to the change

10   of the requested quantity of parent products, the fixed quantity of parts and the surplus quantity of parts, and

update the fixed quantity for parent products and surplus production quantity for parent products according to the change of the requested quantity of parent products, and

15   update the fixed quantity of parts and the surplus production quantity of parts according to the change of the fixed quantity for parent products and surplus production quantity for parent products.

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3.   A production control system for producing products from parts, the production control system, comprising:

a product data obtaining module configured to obtain product data including a consolidated contribution profit from a parent product

25   production location, which is a location producing parent products using the products as their direct parts;

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a part data obtaining module configured to obtain part data including an upstream consolidated contribution profit from a part production location producing the parts;

a consolidated contribution profit calculation module configured to calculate an upstream consolidated contribution profit of a production department producing the products from the parts based on the upstream consolidated contribution profit, and calculate a consolidated contribution profit of the production department based on the consolidated contribution profit and the upstream consolidated contribution profit;

a product data transmission module configured to transmit product data including the upstream consolidated contribution profit of the production department to the parent product production location; and,

a part data transmission module configured to transmit part data including the consolidated contribution profit of the production department to the part production location.

4. A production control system for producing products from parts, the production control system comprising:

a production scheduler configured to prepare a schedule table by use of data changed in an event where product data, part data, a process master and a resource table, which are required for preparing the schedule table of the products, are changed; and,

a CF data calculation module configured to obtain product data, a resource table and department data concerning the department producing the product using the parts according to the schedule table, and calculate cash flows based on the product data, the resource table and the department

data.

5.   A production control system for producing products from parts, the production control system comprising:

an upper-level department CF data obtaining module configured to obtain upper-level organization CF data from a parent department, which is an upper-level department to which a production department producing the products by use of the parts belongs;

an lower-level department CF data obtaining module configured to obtain lower-level department CF data from child departments, which are lower -level departments which belong to the production department;

a CF data calculation module configured to calculate cash flows of the production department based on product data, a resource table and department data of the production department, and calculate an upper-level consolidated cash flow based on the cash flows of the production department and the upper-level department CF data, and calculate a lower-level consolidated cash flows based on the cash flows of the production department and the lower-level department CF data;

an upper-level department CF data transmission module configured to transmit any of the cash flows of the production department and the lower-level consolidated cash flows to the parent department; and,

a lower-level department CF data transmission module configured to transmit any of the cash flows of the production department and the upper-level consolidated cash flows to the child department.

6.   A production control system for producing products from parts, the

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production control system, comprising:

means for obtaining product data including an effective surplus production quantity from a parent product production location, which is a location producing parent products using the products as their direct parts;

5   means for obtaining part data including a surplus production quantity from a part production location producing the parts;

means for calculating an effective surplus production quantity of a production department which produces the products from the parts based on the effective surplus production quantity and the surplus production

10   quantity;

means for transmitting part data including an effective surplus production quantity of the production department to the part production location; and,

means for transmitting product data including a surplus production

15   quantity of their products to the parent production location.

7.   A production control system for producing products from parts, the production control system, comprising:

means for obtaining product data including a consolidated

20   contribution profit from a parent product production location, which is a location producing parent products using the products as their direct parts;

means for obtaining part data including an upstream consolidated contribution profit from a part production location producing the parts;

means for calculating an upstream consolidated contribution profit

25   of a production department producing the products from the parts based on the upstream consolidated contribution profit, and calculating a

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consolidated contribution profit of the production department based on the consolidated contribution profit and the upstream consolidated contribution profit;

means for transmitting product data including the upstream

5   consolidated contribution profit of the production department to the parent product production location; and,

means for transmitting part data including the consolidated contribution profit of the production department to the part production location.

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8.   A production control system for producing products from parts, the production control system comprising:

means for preparing a schedule table by use of data changed in an event where product data, part data, a process master and a resource table,

15   which are required for preparing the schedule table of the products, are changed; and,

means for obtaining product data, a resource table and department data concerning the department producing the product using the parts according to the schedule table, and calculating cash flows based on the

20   product data, the resource table and the department data.

9.   A production control system for producing products from parts, the production control system comprising:

means for obtaining upper-level organization CF data from a parent

25   department, which is an upper-level department to which a production department producing the products by use of the parts belongs;

means for obtaining lower-level department CF data from child departments, which are lower -level departments which belong to the production department;

means for calculating cash flows of the production department based on product data, a resource table and department data of the production department, and calculating an upper-level consolidated cash flow based on the cash flows of the production department and the upper-level department CF data, and calculating a lower-level consolidated cash flow based on the cash flows of the production department and the lower-level department CF data;

means for transmitting any of the cash flows of the production department and the lower-level consolidated cash flows to the parent department; and,

means for transmitting any of the cash flows of the production department and the upper-level consolidated cash flows to the child department.

10. A production control method for producing products from parts, the method comprising:

obtaining product data including an effective surplus production quantity from a parent product production location, which is a location producing parent products using the products as their direct parts;

obtaining part data including a surplus production quantity from a part production location producing the parts;

calculating an effective surplus production quantity of a production department, which produces the products from the parts, based on the

effective surplus production quantity and the surplus production quantity; and,

transmitting part data including an effective surplus production quantity of the production department to the part production location.

11. The production control method of claim 10, further comprising:

retaining the product data including a fixed quantity for parent products, a requested quantity of parent products, and a surplus production quantity for parent products;

retaining the part data including a fixed quantity of parts, a desired quantity for parts, and a surplus production quantity of parts;

updating the requested quantity of parent products by the change of the desired quantity for parts;

updating the fixed quantity for parent products and surplus production quantity for parent products according to the change of the requested quantity of parent products; and,

updating the fixed quantity of parts and the surplus production quantity of parts according to the change of the fixed quantity for parent products and surplus production quantity for parent products.

12. The production control method of claim 10, further comprising:

calculating an effective surplus production quantity for each production period in consideration of a lead time taken to complete the products.

13. The production control method of claim 10, further comprising:

calculating an effective surplus production marginal profit by use of a product of an effective surplus production quantity of the production department for each production period and a marginal profit of the products.

5   14.   The production control method of claim 10, further comprising:

calculating an effective surplus production cash flow by adding an accumulation of the effective surplus production marginal profits to a production plan cash flow, which is a cash flow in the case where the products are produced according to a production plan, all the products are

10   sold in each production period and no inventory is kept.

15.   A production control method for producing products from parts, the method, comprising:

obtaining product data including a consolidated contribution profit

15   from a parent product production location, which is a location producing parent products using the products as their direct parts;

obtaining part data including an upstream consolidated contribution profit from a part production location producing the parts;

calculating an upstream consolidated contribution profit of a

20   production department producing the products from the parts based on the upstream consolidated contribution profit;

calculating a consolidated contribution profit of the production department based on the consolidated contribution profit and the upstream consolidated contribution profit;

25   transmitting product data including the upstream consolidated contribution profit of the production department to the parent product

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production location; and,

transmitting part data including the consolidated contribution profit of the production department to the part production location.

5   16.   The production control method of claim 15, further comprising:

calculating upstream consolidated contribution profit and consolidated contribution profit for each production period in consideration of a lead time taken to complete the products.

10   17.   The production control method of claim 15, further comprising:

calculating an upstream consolidated contribution profit and a consolidated contribution profit in the case of producing an effective surplus production quantity.

15   18.   The production control method of claim 15, further comprising:

calculating cash flows of the entire related organizations based on a cash flow of an upper-level organization of the production department and upstream consolidated contribution profit and consolidated contribution profit in the case of producing the effective surplus production quantity.

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19.   A production control method for producing products from parts, the method, comprising:

changing product data, part data, a process master and a resource table, which are required for preparing a schedule table of the products;

25   preparing the schedule table using data after the change;

obtaining department data of a production department producing

the products using product data, a resource table and the parts according to the schedule table; and,

calculating cash flows based on the product data, the resource table and the department data.

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20.   The production control method of claim 19, further comprising:

displaying the cash flows.

21.   A production control method for producing products from parts, the

10   method, comprising:

obtaining upper-level department CF data from a parent department, which is an upper-level organization to which a production department producing the products from the parts belongs;

obtaining lower-level department CF data from child departments,

15   which are lower-level departments which belong to the production department;

calculating cash flows of the production department based on product data, a resource table and department data of the production department;

20   calculating an upper-level consolidated cash flow based on the cash flows of the production department and the upper-level department CF data;

calculating a lower-level consolidated cash flow based on the cash flows of the production department and the lower-level department CF data;

25   transmitting any of the cash flows of the production department and the lower-level consolidated cash flows to the parent department; and,

transmitting any of the cash flows of the production department and the upper-level consolidated cash flows to the child department.

22.　The production control method of claim 20, further comprising:

5　　　　　displaying any of the upper-level consolidated cash flows and the lower-level consolidated cash flows.

23.　A production control computer program product to be executed by a computer for producing products from parts, comprising:

10　　　　instructions configured to obtain product data including an effective surplus production quantity from a parent product production location, which is a location producing parent products using the products as their direct parts;

　　　　　instructions configured to obtain part data including a surplus
15　production quantity from a part production location producing the parts;

　　　　　instructions configured to calculate an effective surplus production quantity of a production department which produces the products from the parts based on the effective surplus production quantity and the surplus production quantity; and,

20　　　　instructions configured to transmit part data including an effective surplus production quantity of the production department to the part production location.

24.　A production control computer program product to be executed by a
25　computer for producing products from parts, comprising:

　　　　　instructions configured to obtain product data including a

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consolidated contribution profit from a parent product production location, which is a location producing parent products using the products as their direct parts;

instructions configured to obtain part data including an upstream consolidated contribution profit from a part production location producing the parts;

instructions configured to calculate an upstream consolidated contribution profit of a production department producing the products from the parts based on the upstream consolidated contribution profit;

instructions configured to calculate a consolidated contribution profit of the production department based on the consolidated contribution profit and the upstream consolidated contribution profit;

instructions configured to transmit product data including the upstream consolidated contribution profit of the production department to the parent product production location; and,

instructions configured to transmit part data including the consolidated contribution profit of the production department to the part production location.

25. A production control computer program product to be executed by a computer for managing production from parts to products, comprising:

instructions configured to change product data, part data, a process master and a resource table, which are required for preparing a schedule table of the products;

instructions configured to prepare the schedule table using data after the change;

instructions configured to obtain department data of a production department producing the products from product data, a resource table and the parts according to the schedule table; and,

instructions configured to calculate cash flows based on the product

5 data, the resource table and the department data.

26. A production control computer program product to be executed by a computer for managing production from parts to products, comprising:

instructions configured to obtain upper-level department CF data

10 from a parent department, which is an upper-level department to which a production department producing the products using the parts belongs;

instructions configured to obtain lower-level department CF data from child departments, which are lower-level departments which belong to the production department;

15 instructions configured to calculate cash flows of the production department based on product data, a resource table and department data of the production department;

instructions configured to calculate an upper-level consolidated cash flow based on the cash flows of the production department and the

20 upper-level department CF data;

instructions configured to calculate a lower-level consolidated cash flow from the cash flows of the production department and the lower-level department CF data;

instructions configured to transmit any of the cash flows of the

25 production department and the lower-level consolidated cash flows to the parent department; and,

instructions configured to transmit any of the cash flows of the production department and the upper-level consolidated cash flows to the child department.